**MATHS INDICATORS ALIGNMENT**

**2016-2017**

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| **STRAND: HANDLING DATA** |  | **ACHIEVEMENTS** | **FIRST PERIOD** | **SECOND PERIOD** | **THIRD PERIOD** |
| **Nursery** | ***Explore and find physical characteristics of objects in their environment: color, texture, hardness (Phase 1)*** | ☑ Identifies and names primary colours in English. | ☑ Identifies and names secondary colours in English.  ☑Compares objects in a set identifying which ones are similar and which ones are different.  ☑ Explores smooth, rough, soft and hard objects in his immediate environment. **(cover)** | ☑ Describes objects according to at least one criteria: texture, hardness and colour |
| **Prekinder** | ***Compare, sort and order objects by attributes finding similarities and differences among them***  ***(Phase 1)*** | ☑ Describes objects according to their size, colour, shape, hardness, and texture. (Phase 1) | ☑ Sorts a set ofobjects according to at least two criteria. (Phase 1)  ☑ Sorts a collection of objects into sets for a purpose (Phase 1) | ☑ Compares quantities organised in an object graph. (Phase 1) |
| **Kinder** | ***- Collect, record, organise, display and compare data using picture graphs and bar-graphs to compare and contrast.(Phase 2)***    ***- Predict outcomes in order of likelihood.(Phase 2)*** | ☑ Sorts a collection of objects into sets for a purpose (3 criteria) | ☑ Organises objects and pictures on a graph to compare quantities: more, less, more than, less than (Phase 2) | ☑ Reads data on a bar graph based on teacher´s questions (Phase 3)  ☑ Makes reasonable predictions about possible outcomes, using related vocabulary (impossible, likely and certain). |
| **First Grade** | ***Collect and display data in different types of graphs interpreting them for the purpose of finding information. (Phase2)***  ***Predict outcomes using mathematical vocabulary. (Phase2)*** | ☑ Describe part-whole relationships while sorting objects (class inclusion)  ☑ Discusses, identifies, and places outcomes in order of likelihood: impossible, less likely, more likely and certain, in game contexts. (Phase 2) | ☑ Displays and interprets information in bar graphs. (Phase 2) | ☑ Collects, displays and interprets data in Venn diagram. (Phase 2) |

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| **STRAND: MEASRUREMENT** |  | **ACHIEVEMENTS** | **FIRST PERIOD** | **SECOND PERIOD** | **THIRD PERIOD** |
| **Nursery** | ***- Compare objects according to their size through exploration. (Phase 1)*** | Orders a series of objects by size identifying the biggest and the smallest one.  (B: 3 objects). | Orders a series of objects by size identifying the biggest and the smallest one.  (B: 4 objects). | Orders a series of objects by size identifying the biggest and the smallest one  (B: 5 objects). |
| **Prekinder** | ***- Explore and compare length making direct comparisons (Phase 1)*** | ☑ Orders a series of 8 objects by size and inserts a missing object in its place (Phase 1) | ☑ Makes direct comparisons of objects according to length*.* (Phase 1) | ☑ Makes indirect comparisons of objects according to length*.* (Phase 1) |
| **Kinder** | ***- Explore, compare and order objects making direct comparisons (Phase 1)***  ***-Estimate, identify, compare and describe attributes of real objects and measure them using non-standard units.***  ***(Phase 1)*** | ☑ Orders a set of 10 objects by size and matches it with a corresponding set. | ☑ Estimates, compares length (longer than, the longest, shorter than and the shortest) and measures length, with non-standard units to solve daily life situations. | ☑ Estimates, compares (heavier than, the heaviest, lighter than, the lightest), weight with non-standard units to solve daily life situations. |
| **First Grade** | ***-Estimate, measure and label length, time, and use standard units of measurement to describe and compare objects and events. (Phase2)*** |  | ☑ Estimates and measures length using the appropriate tools and units. (Phase 2)  ☑ Measures time using the appropriate tools and units. (Phase 2) | ☑ Explains why human beings need to measure. (Phase 2) |

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| **STRAND: NUMBER** |  | **ACHIEVEMENTS** | **FIRST PERIOD** | **SECOND PERIOD** | **THIRD PERIOD** |
| **Nursery** | ***Explore the concept of quantity by counting and comparing small amounts of objects, developing one-to-one correspondence.(Phase 1)*** | ☑ Counts objects from 1 to 3 having oral sequence and movement correspondence. | ☑ Counts objects from 1 to 5 having oral sequence and movement correspondence. | ☑ Establishes quantities by counting objects from 1 to 5 having oral sequence and movement correspondence.  ☑ Uses one to one correspondence to compare quantities (Phase 1) (B: 5 objects) |
| **Prekinder** | ***Read, count, compare, order and describe quantities using numbers, developing one-to-one correspondence***  ***Perceptually recognisez small quantities presented in constellations.*** | ☑ Uses one to one correspondence to compare quantities (Phase 1)  ☑ Establishes quantities by counting objects from 1 to 12 having oral sequence and movement correspondence (Phase 1)  ☑ Perceptually subitises quantities from 1 to 4 (Phase 1) (Cover) | ☑ Matches numerals from 1 to 6 to the quantities they represent.  ☑ Makes many sets of the same number from 3 to 8 (Phase 1)  ☑ Tells simple maths stories using objects (Phase 1) (Cover)  ☑ Perceptually subitises quantities from 1 to 4 (Phase 1) | ☑ Matches numerals from 1 to 12 to the quantities they represent.  ☑ Orders quantities up to 8. (Phase 1)  ☑ Tells simple maths stories using objects (Phase 1) (Cover) |
| **Kinder** | *-Develop understanding of the Place-value notational system to represent numbers, relationships and operations among them. (Phase 2)* | ☑ Establishes quantities by counting objects from 1 to 15 having oral sequence and movement correspondence (Phase 1)  ☑Orders and compares quantities from 1 to 10, inserting a missing one (n+1).  ☑ Uses objects to find number combinations (3 to 5) and represents them with drawings.  ☑ Tells simple maths stories using objects for some combinations (3-5) (Phase 1) (Cover) | ☑ Establishes quantities by counting objects from 1 to 20 having oral sequence and movement correspondence (Phase 1)  ☑ Uses objects to estimate quantities up to 10. (Phase 1)  ☑ Uses objects to find and order number combinations (3 to 7) and represents them with drawings and numerals.  ☑ Tells simple maths stories using objects for some combinations (3-7) (Phase 1) (Cover) | ☑ Matches numerals from 6 to 20 to the quantities they represent.  ☑ Uses objects to estimate quantities up to 10. to 15. (Phase 1)  ☑ Uses objects to find and order number combinations (5 to 9) and represents them with drawings and numerals.  ☑ Tells simple maths stories using objects for some combinations (5-9) (Phase 2) |
| **First Grade** | ***Use Place-value notational system to describe quantities, to make addition and subtraction operations; and model whole-part relationships. (Phase 1)*** | ☑ Estimates and counts to establish quantities from 1 to 30 having oral sequence and movement correspondence. (Phase 1)  ☑ Uses objects to model addition of quantities for numbers 10 to 18, using 1-digit numbers, representing them with equations (Phase 2)  ☑ Models simple fraction relationships (half, quarter). (Phase 2) | ☑ Estimates and counts to establishes quantities up to 50. (Phase 1)  ☑ Models numbers using place-value notational system to 99 (tens and units).  ☑ Uses objects to model addition and subtraction of quantities for numbers 10 to 18, using 1-digit numbers, representing them with equations (Phase 2) | ☑ Estimates and establishes quantities using skip counting as a strategy (by 2s, 5s, 10s). (Phase 1)  ☑ Solves word problems involving addition and subtraction. (Phase 2)  ☑Uses concrete material to demonstrate why a number is odd or even. |

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| **STRAND: PATTERNS AND FUNCTIONS** |  | **ACHIEVEMENTS** | **FIRST PERIOD** | **SECOND PERIOD** | **THIRD PERIOD** |
| **Nursery** | ***Explores simple patterns with their bodies and objects. (Phase 1)*** | ☑ Imitates modelled patterns involving 2 body movements. | ☑ Imitates modelled patterns involving 2 body movements. | ☑ Reads and extends modelled patterns involving 2 objects. |
| **Prekinder** | ***Identify simple linear patterns and extend them (Phase 1)*** | ☑ Using objects, reads and extends linear patterns (2 elements) (Phase 1) | ☑ Creates and extends simple linear patterns using objects (3 elements).  (Phase 1) | ☑ Explores and finds patterns in their physical environment. |
| **Kinder** | ***-Extend patterns and create new ones. (Phase 2)*** | ☑ Extends linear patterns in both directions (3 elements). | ☑ Extends linear patterns in both directions (3 elements), involving at least 2 variables. | ☑ Extends and creates linear patterns in both directions (3 elements), involving at least 2 variables. |
| **First Grade** | ***Identify and describe patterns found in whole numbers; extend and create new ones.***  ***(Phase 2)*** | ☑ Uses concrete material to describe and extend a variety of patterns involving several variables at once (movement, position, shape, size, colour, texture, sound, etc). | ☑ Uses concrete material to extend and create a variety of patterns involving several variables at once (movement, position, shape, size, colour, texture, sound, etc).  ☑ Recognises, describes and extends number patterns: skip counting by 5s and 10s. (Phase 2)  ☑ Identifies the inverse relationship between addition and subtraction. (Phase 2) | ☑ Uses concrete material to extend simple growing patterns.  ☑ Puts the inverse relationship between addition and subtraction into practice when solving equations. (Phase 2) |

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| **STRAND: SHAPE AND SPACE** |  | **ACHIEVEMENTS** | **FIRST PERIOD** | **SECOND PERIOD** | **THIRD PERIOD** |
| **Nursery** | **Explores regions and boundaries of their immediate environment using their body (Phase 1)** | ☑ Uses material from his immediate environment to create constructions.  ☑ Follows instructions with prepositions of movement using his body: up, down. (Cover) | ☑ Makes a replica of a simple arrangement (4-5 objects). (Phase 1)  ☑ Follows instructions with prepositions of movement using his body: inside, outside. (Cover) | ☑ Makes puzzles, including the human body.  ☑ Follows instructions with prepositions of movement using his body: up, down, inside, outside. |
| **Prkinder** | ***Explore regions, and boundaries of the immediate environment (Phase 1)*** | ☑ Makes a replica of a linear and circular sequences of objects. (Phase 1)  ☑ Follows instructions placing his/her body in different positions in relation to the boundaries and objects in his/her surroundings: inside, outside, on, under, in front, behind. (Cover). | ☑ Makes a replica of a model, design or construction (Phase 1)  ☑ Follows in English instructions placing his/her body in different positions in relation to the boundaries and objects in his/her surroundings: inside, outside, on, under, in front, behind, next to. (Cover) | ☑ Follows in English instructions placing his/her body in different positions in relation to the boundaries and objects in his/her surroundings: inside, outside, on, under, in front, behind, next to. |
| **Kinder** | ***-Identify, label, sort, describe and compare 3D shapes using mathematical vocabulary.***  ***(Phase 1)***  ***-Find examples, explain symmetry and copy symmetrical designs. (Phase 2)***  ***-Describe paths, regions, and boundaries of the immediate environment and follow directions describing position.***  ***(Phase 2)*** | ☑ Explores and sorts 3D shapes (roll, slide, and stack). (Cover)  ☑ Describes a path from their environment using points of reference (including starting and ending points). | ☑Finds and compares 3D shapes in their environment: cube, rectangular prism, triangular prism, sphere, cylinder, pyramid and cone (Phase 1)  ☑ Follows and describes the position of different objects in relation to the objects and boundaries in their surroundings and models:  inside, outside, on, under, in front, behind, next to, between. (Phase 1) (Cover) | ☑ Identifies lines of symmetry in simple shapes and designs (Phase 2)  ☑ Describes the position of different objects in relation to the objects and boundaries in their surroundings and models: inside, outside, on, under, in front, behind, next to, between.( (Phase 1) |
| **First Grade** | ***Identify, label, sort, describe and compare 3D and 2D shapes using mathematical vocabulary.***  ***(Phase2)***  ***Interpret, give and follow directions describing paths, regions, and positions of the immediate environment.***  ***(Phase 1)***  ***Find and explain symmetry and create simple symmetrical pattern (Phase2)*** | ☑ Follows directions using their body to turn left, right and move forwards and backwards.  ☑ Builds a model of a community to give and follow instructions using the following vocabulary: turn left, turn right, forwards, backwards.  ~~)~~ | ☑ Builds and describes a model taking into account the properties of 3D shapes.  Describes the position of different objects in relation to other objects and boundaries: in, on, under, between, behind, in front of, next to, opposite) using the settings they build. (Phase 1) | ☑ Completes and creates symmetrical patterns. (Phase 2) |